JULY/AUGUST 1994

The California Academy of Sciences
in Golden Gate Park

ACADEMY

Newsletter

DEDICATED TO SCIENTIFIC RESEARCH AND EDUCATION, INSPIRING RESPECT FOR THE NATURAL WORLD

SPECIAL TWO-MONTH ISSUE

July and August Members Meetings

Ron Cronin

THE OREGON TRAIL

with photographer Ron Cronin
Wednesday, July 13, 2 and 7:30 p.m.

The Oregon Trail is the famous 2,000-mile pioneer wagon route of 19th-century America, between Independence, Missouri, and the Columbia River region of the Pacific Northwest. The trail, an important part of American heritage, played a large role in the westward movement.

Ron Cronin is a seventh-generation Oregonian whose relatives came out on the Trail in 1844. He has been a photographer for 26 years, working almost exclusively in nature. Cronin's slide presentation will cover most of the historic sites along the trail, including some of the many inscriptions left behind at places like Register Cliff and Independence Rock.

His lecture will help you imagine how the pioneers were affected by their experience in the western landscape. Cronin read many diaries finding a variety of attitudes, from ecstatic romanticism to abject fear. What for some was a romp across the prairies was for others nothing but drudgery and suffering. The diaries, Cronin says, tell the story best of all.

Ron Cronin

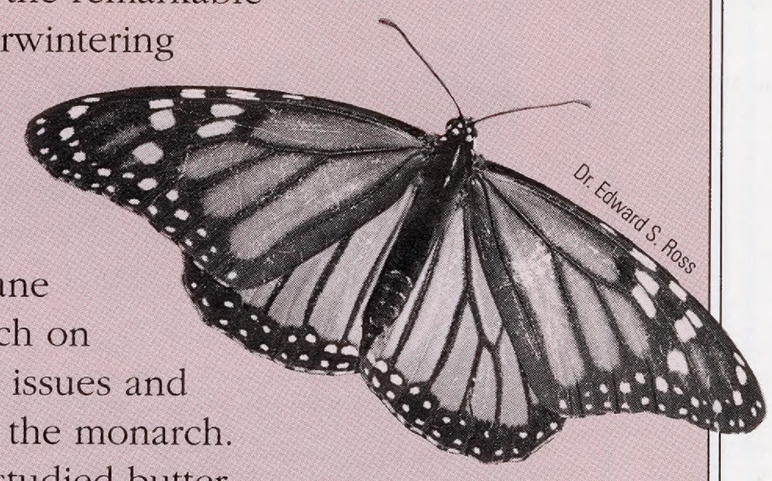
"Our drinking water is living ... that is it is composed of one third green fine moss, one third pollywogs, and one third embryo mosquitoes ... we strain through our teeth." (W.B. Evans, 1852)

THE BEAUTIFUL MONARCH

with naturalist John Lane
Wednesday, August 17, 2 and 7:30 p.m.

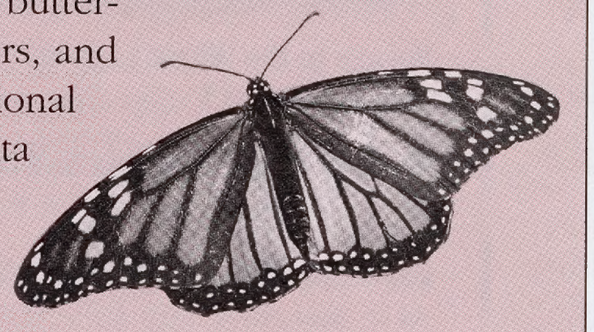
The monarch butterfly's migration, the longest of any insect in the world, is considered an "endangered phenomenon."

Naturalist John Lane will present a slide-illustrated lecture that reviews the general biology of the monarch. You'll learn about the monarch's life cycle, its migratory strategy for survival, its poisonous host plants and other mimicking butterflies. Included will be the history of tagging studies leading up to the discovery of the remarkable Mexican overwintering sites, and a visual tour of sites in Mexico and California. Lane also will touch on conservation issues and the future of the monarch.



Dr. Edward S. Ross

Lane has studied butterflies for over 30 years, and has directed educational programs at the Santa Cruz City Museum of Natural History. He has contributed to many popular butterfly field guides and has been a biological consultant on the monarch and endangered species.



Note: this members meeting is on the third Wednesday instead of the normal second Wednesday.

Please present your membership card at the Academy entrance and again at the auditorium. Members meetings are provided as a benefit of membership and thus are only open to Academy members. Both the Academy gift and bookstore will be open for your convenience.

ADULT & FAMILY EDUCATION

California Desert Lizards

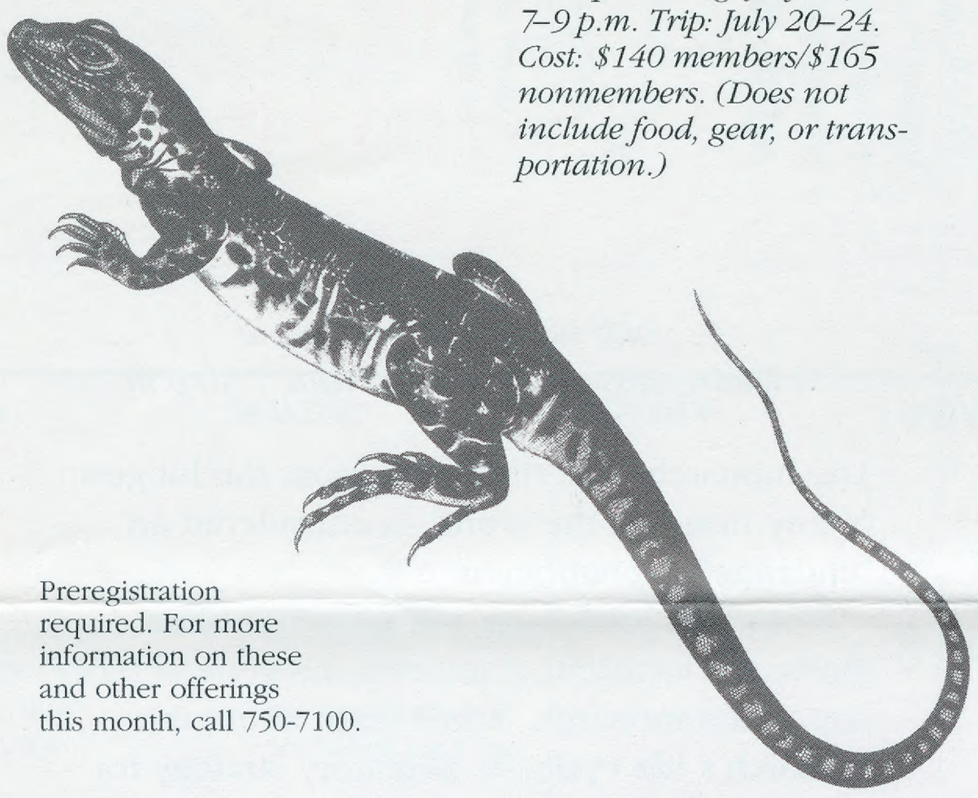
Here's a great chance to get to know the lizards of the California deserts. Join instructor Dr. Jacques Gauthier for an introduction to the evolutionary history of the lizard and this unique biological community. He also will discuss identifying features, habits and habitats of each lizard species. Learn how lizards, including the limbless carnivorous forms commonly known as snakes, cope with challenges of life in such an extreme environment.

July 19, 7–9 p.m.
Cost: $12 members / $15 nonmembers

Backpacking Ten Lakes in Yosemite

Explore the high country of Yosemite with instructor Bill Randolph. In the areas nestled above the south rim of the Grand Canyon of the Tuolumne River we'll take up to six mile day hikes at elevations up to 10,000 feet. You'll enjoy the local geology, flora and fauna and unimpeded views. Dinners will be prepared communally, with breakfast and lunch on your own. You must be in excellent physical shape and able to hike seven miles at high elevations carrying a full backpack to the base camp.

Pretrip meeting: July 13, 7–9 p.m. Trip: July 20–24. Cost: $140 members/$165 nonmembers. (Does not include food, gear, or transportation.)



Preregistration required. For more information on these and other offerings this month, call 750-7100.

Pal Hermansen, Ski, Norway

SPECIAL EXHIBIT

A CLOSER LOOK

It's not often that you get to look into the eyes of a bull elephant or catch an orangutan sneaking a drink of water. These are just a few of the images you will find exhibited in the Academy's Jungle Cafe, August 15 through October 10.

The exhibit, "British Gas Wildlife Photographer of the Year Competition," comprises the best 85 photographs of contemporary wildlife photography and addresses many issues concerning today's wild world. The exhibit also includes introductory materials and a carousel tray containing 65 slides of photographs, complete with sound effects. The winners were selected from more than 11,500 entries from 42 different countries.

The touring exhibition was organized by the BBC Wildlife Magazine and The Natural History Museum (London).

ACADEMY TRAVEL 1995

CRUISES

Falkland Islands and Antarctica aboard the *M.V. World Discoverer* with Brian Gibeson, Nov. 22–Dec. 7, 1994

Exploring the Natural Treasures of Panama Canal and Costa Rica aboard the *M.S. Polaris* with Luis Baptista, Dec. 20–31, 1994

Voyage to the Whale Lagoons aboard the *M.V. Sea Lion* with Jim Kelley, Jan. 16–25

River of Kings: Dresden and the Danube aboard the *M.S. Heinrich Heine* with Peter Rodda, June 11–26

Exploring Alaska's Coastal Wilderness aboard the *M.V. Sea Bird* with Brian Gibeson, July 2–9

Exploring Arctic Norway and Spitsbergen aboard the *M.S. Polaris* with Jim Kelley, July 23–Aug. 3

In the Wake of Lewis and Clark: The Columbia River aboard the *M.V. Sea Bird* with Doug Bell, Sept. 22–28

Venezuela: Trinidad, Orinoco River, Angel Falls aboard the *M.S. Polaris* with Frank Almeda, Nov. 15–23

LAND TOURS

Journey Through Ethiopia with Charles Griswold, Jan. 12 to Feb. 4

Costa Rica Natural History with Frank Almeda, Feb. 12–28

Malaysia: Borneo and Malay Peninsula with Terry Gosliner, April

Zimbabwe, Zambia and Botswana Fly-In Safari with Bob and Gail Drewes, Sept. 13–30

Yucatan: Land of the Ancient Maya with Richard Hansen and Chuck Cecil, November

Chile: Patagonia and the Lake District with Gary Williams, November or December

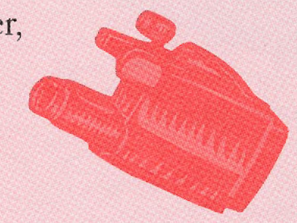
SPECIAL INTEREST • ADVENTURE • FAMILY

A Photo Safari to Southern France with Susan Middleton, April

Colorado River Rafting Adventure with Greg de Nevers, June 22

The Polar Bears of Manitoba with Pat Morales, Oct. 13–19

A Family Safari to Kenya with Terry Gosliner, Aug. (for kids 12 and over, their parents and grandparents)

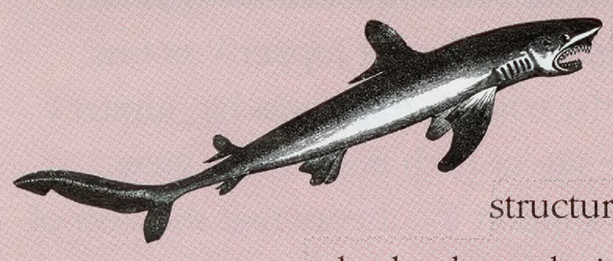


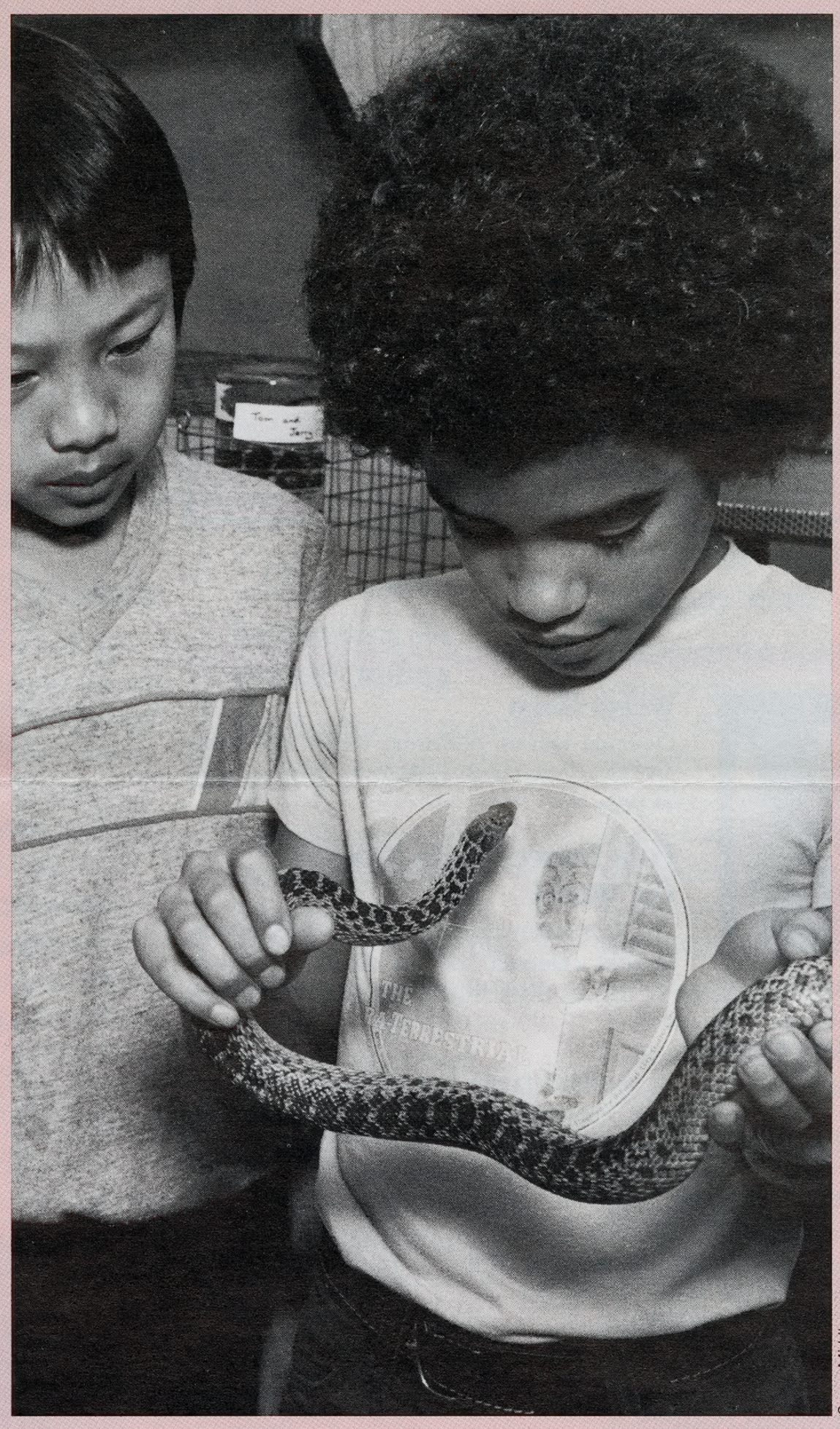
To enjoy one of these fascinating and exciting trips, call the Academy travel office at 750-7348.

JUNIOR ACADEMY

Summer session for Junior Academy begins July 11! Come experience the fascinating worlds of biology, geology, chemistry and art through nearly 50 activity-oriented classes, field trips and workshops for children 6 to 18.

In Junior Academy, the major ideas of science are developed through a thematic approach. In a class about sharks, a detailed study of the shark's anatomy explains the theme of scale and structure. Studying sharks through time explains evolution, and examining how the shark's world is impacted by people explains systems and interactions.





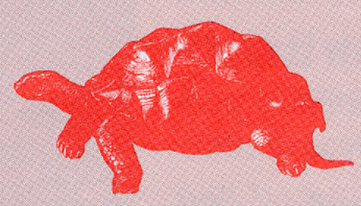
Susan Middleton

Sample classes and field trips include:

- What Makes Things Go? – the how and why things roll, fly and float
- Animal Homes – explores animal dwellings by making various homes
- Lights! Camera! Action! – about basic video and journalism techniques
- Turtle Tales – discovery of turtles through songs, plays, games and crafts
- The Physics of Roller Coasters – the basic physical properties of coasters
- Monarch Butterfly Shadow Puppets – hand-made puppets illustrate life cycle

New this summer will be two, five-day sessions of Camp Academy, an afternoon day camp for children 9 to 12 that focuses on the diversity and interdependence of life.

Membership in Junior Academy (a $10 value) is included in your Academy family membership. Classes are reasonably priced, with most ranging from $30–$35. Summer courses meet two to three times per week for three weeks. Separate July and August sessions allow for vacations. Sign up now for high quality science education that's fun!



FOR YOUR COPY OF THE CLASS CATALOG AND REGISTRATION FORM,

CALL THE EDUCATION DEPARTMENT AT 750-7100.

MORRISON PLANETARIUM

Echoes from the Moon

Twenty-five years ago humans set foot on another world in space. Images from that adventure still capture the imagination. What secrets did the Moon reveal about itself and about our Earth? Relive the exciting voyage of the Apollo astronauts and explore the knowledge that still echoes from the Moon. This feature sky show opens July 1 and runs through September 11 and is shown at 3:30 p.m. weekdays, and at 1 and 3 p.m. on weekends.

Current Sky Shows

Along with the Academy's extended summer hours (July 4–September 5) the planetarium will be offering additional weekday sky shows starting July 1. The new feature show "Echoes from the Moon" begins July 1 (see above for times). "Impact!" explores collisions among celestial bodies at 2 p.m. weekdays, and at 2 and 4 p.m. weekends. "Touch the Stars," a family show, plays at 11 a.m. every day. "Startalk," a tour of the night sky, is shown at 12:30 p.m. weekdays, and at 12 p.m. weekends.

Call 750-7141, for more information.

TRADITIONAL ARTS

JULY

Judy Houston Photography

Welsh Harp

Gwenda Davies performs Welsh folk songs and airs on the traditional Celtic harp or *telyn*. — *July 9*

Folk Dances from Around the World

The Ross Valley Dancers, a local children's ensemble, celebrate the Bay Area's cultural diversity with a program of dances from around the globe. — *July 16*

Greek Ceramics

For four generations the Nicolaou family has produced decorative pottery. Giorgos Nicolaou demonstrates the pottery techniques he learned while growing up in his Aegean home. — *July 23*

Puppet Theater

Using a variety of masks and life-size puppets, the Tozzi Puppet Company presents "Frank and the Wolf," a fractured version of Prokofiev's classic story. — *July 30*

AUGUST

Taos Pueblo Pottery

Renee Concha discusses Taos and Jemez Indian pottery and displays some of her work. — *Aug. 6*

Russian Silk Painting

A recent immigrant from Moscow, Natasha Fouko creates beautiful paintings on silk using a resist technique popular in Russia during the nineteenth century. — *Aug. 13*

Scottish Bagpipes

Paul Hamilton performs a medley of Scottish tunes on the bagpipes. — *Aug. 20*

Appalachian Dance and Folkways

Dana DeSimone demonstrates Appalachian folk traditions such as the rhythmic buck dance, forms of body slapping and hand clapping, playing the spoons and bones, and clogging styles. — *Aug. 27*

Explore cultural traditions from around the world, Saturdays 1–2 p.m.
Free after general admission. Call 750-7164 for more information.

Comet Slams into Jupiter July 16!

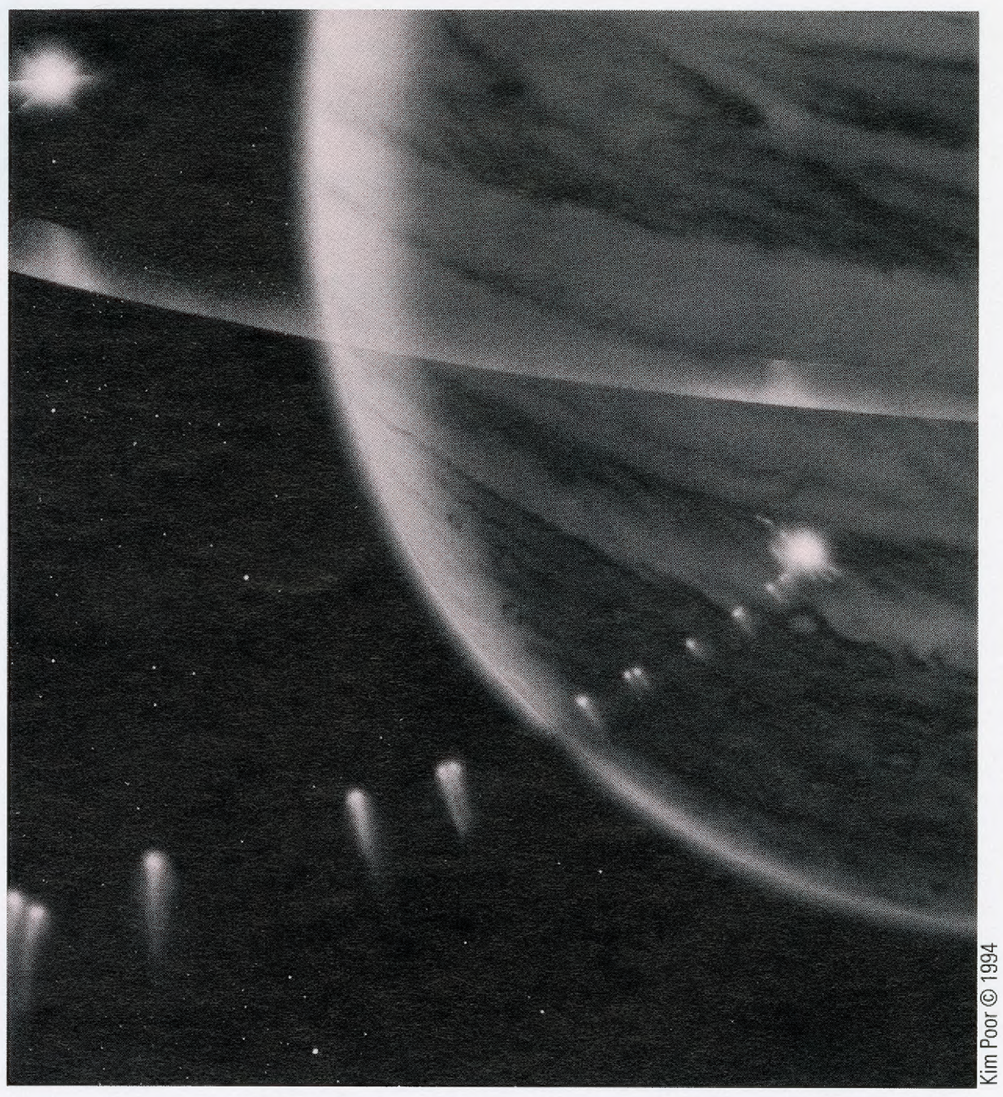
Even as the controversy of the "dinosaur-killer" asteroid is still being argued, a new impact in our solar system is taking the spotlight. A comet – actually, the pieces of a comet – will slam into the planet Jupiter on July 16. You'll be able to see it first hand through NASA television coverage shown in Earth and Space Hall and in the Academy's auditorium from July 16–22.

The comet was discovered in March 1993 and named Comet Shoemaker-Levy 9. The train of objects we now see measures nearly 50 million miles in length. Because the train is so long, the impacts are expected to take place over a period of about five or six days. There is nothing in human memory to compare this event to that would help us calculate what will happen when the comet fragments hit Jupiter's gaseous mass.

The point of impact is on the side of Jupiter facing away from earth. However, we might see the light of each explosion illuminating a few of Jupiter's moons. Fifteen minutes after the comet's fragments hit, Jupiter's rotation will bring the site of each impact into view.

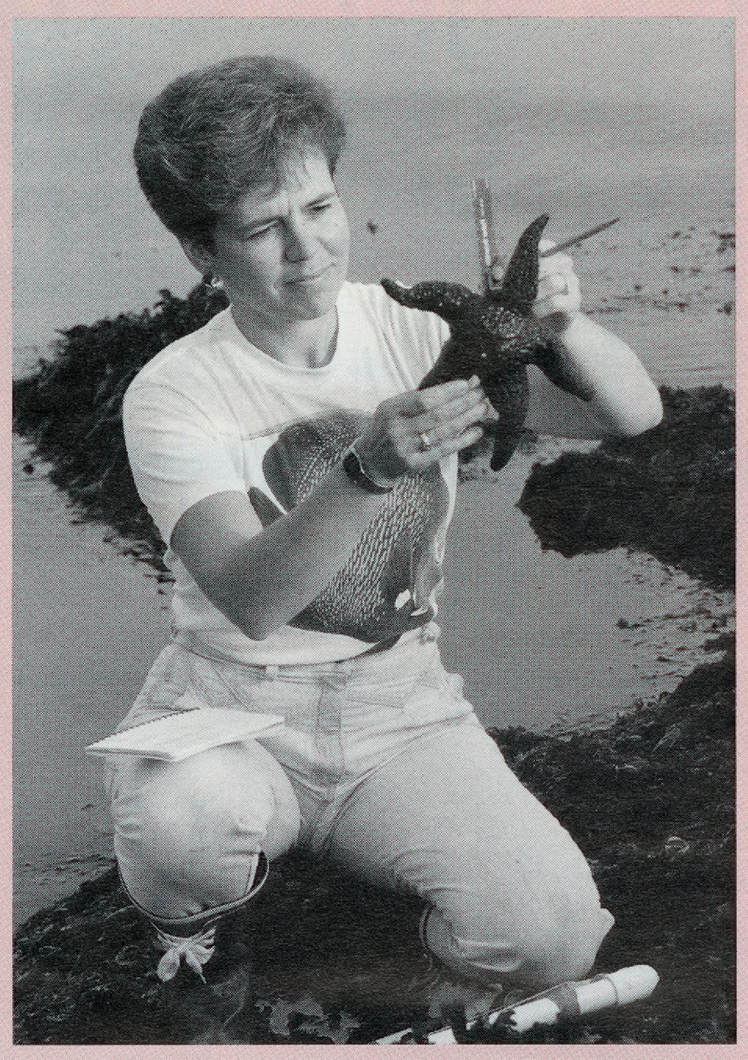
Some astronomers support the theory that showers of comets led to the extinction of Earth's dinosaurs 65 million years ago. But, what else is out there, and how long will it be before there's another major impact on our own planet?

Call 750-7141 for show times for the NASA coverage and for general comet updates. Information about the comet will be posted on the astronomy bulletin board in Earth and Space Hall as it becomes available. Of course, you won't want to miss the Planetarium's feature sky show, "Impact!," which highlights this event, shown at 2 p.m. daily with additional weekend shows at 4 p.m. through Sept. 11.



Kim Poor © 1994

SPECIAL LECTURES



Global Horizons and Rocky Shores

Co-sponsored by Oregon State University

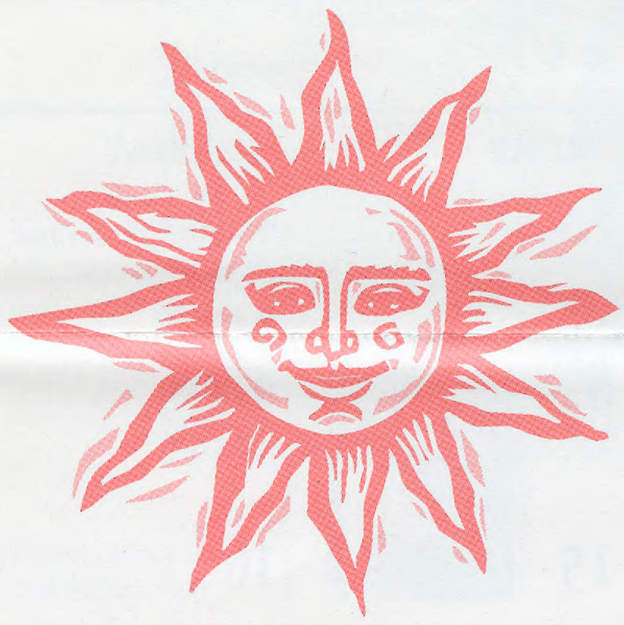
We are changing our planet faster than we can understand the effects. These changes trigger significant biological responses that cannot be predicted. A rich tradition of natural history and experimental studies has provided a wealth of information that helps us evaluate these consequences. For example, intertidal and shallow subtidal communities on the West Coast of the United States are among the best understood in the world.

Environmental impact studies of the Diablo Canyon Power Plant provide valuable information. The results have important implications for policy and management. Diablo Cove provides a model of how changes in one factor (in this case, the discharge of heated sea water) affect various plants and animals, and how these responses trigger other changes.

Dr. Jane Lubchenco, a distinguished professor of zoology at Oregon State University and a MacArthur Fellow, will discuss the importance of being cautious in initiating environmental changes or in continuing ones already begun.

Sept. 10— 6:30 p.m. $6 members/$8 nonmembers

Lectures are presented in the auditorium by experts in various aspects of natural history. Please use order form for tickets. For information, call 750-7128.



Expanded Summer Hours

For summer, the Academy will extend its hours from 10 a.m. until 7 p.m., July 4 through Labor Day (September 5).

In Search of Human Origins

Back by popular demand, meet Blake Edgar, assistant editor of the Academy's *Pacific Discovery* magazine, on Author's Days, July 7 and 14, at 2 p.m. in Cowell Hall. He'll discuss the science of human origins and his book "Ancestors: In Search of Human Origins," co-written with Donald and Lenora Johanson. He will show slides and display hominid fossil skulls from the Academy collection to highlight current research in the fascinating field of paleoanthropology.

Minerals – A Rainbow of Colors

The Academy will exhibit red minerals at the San Francisco Gem and Mineral Society's "Ruby Red 40th Anniversary Gem and Mineral Show," on August 6 and 7. There will be displays and demonstrations of lapidary, carving, intarsia and faceting, as well as collections of minerals from around the world.

Dr. Jean DeMouthe from the Academy's invertebrate zoology and geology department, will be available to answer questions about her display on the formation of red minerals. She'll explain how minerals get their color through different chemical compositions and will be a guest speaker Sunday afternoon.

The event takes place at the San Francisco County Fair Building (Hall of Flowers) in Golden Gate Park, from 10 a.m. to 6 p.m., Saturday, and from 10 a.m. to 5 p.m., Sunday. Academy members will receive .50 cents off the admission price of $3.50.

Thanks for Keeping the Presses Rolling

The Academy is grateful to Simpson Paper Company for its donation of paper for printing the member's newsletter. Simpson Paper Company is a 105-year-old forest products company and one of the first to make the important investment in replanting lands after harvesting. Simpson views support of the environment and the Academy as a significant investment in the well-being of the communities in which their employees live and work.

Dr. Edward S. Ross

Butterflies Invade Academy Store

Migrate to the Academy Store to glimpse a swarm of exciting new butterfly merchandise. Dazzling magnets, slick stickers and notecards will appear to flutter before your eyes. You'll find games to educate and amuse, and colorful T-shirts with beautiful butterfly prints. Gift prices range from $3 to $30.

Members Special Monarca Celebration

Join us for a special members celebration and reception of the new, special exhibit "MONARCA … butterfly beyond boundaries," Wednesday, July 20, 6 to 8 p.m. Both entrances will be open for your convenience. Please show your membership card at the entrance.

California Academy of Sciences
Golden Gate Park
San Francisco, CA 94118

Address Correction Requested

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LECTURES

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Global Horizons and Rocky Shores / Sept. 10	____ x $ 6	____ x $ 8	= ____

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Include a self-addressed, stamped envelope for each series to which you subscribe.
No refunds/exchanges.

California Academy of Sciences

The Academy includes the Natural History Museum, Steinhart Aquarium and Morrison Planetarium. Open every day from 10 a.m. to 5 p.m. July 4–Labor Day we're open until 7 p.m.

VISITOR SERVICES

Academy Information: 415-750-7145
Academy Store: 750-7330
Admissions: 750-7159
Aquarium: 750-7247
Biodiversity Center: 750- 7361
Development Office: 750-7216
Docent Tours: 750-7155
Education Office: 750-7100
Group Information: 750-7043
Job Hotline: 750-7333
Laserium: 750-7138
Lectures: 750-7128
Library: 750-7102
Membership Office: 750-7111
Planetarium: 750-7141
Planned Giving: 750-7216
Security: 750-7000
Switchboard: 221-5100
Travel: 750-7348
Volunteer Services: 750-7154
Weekend Information: 750-7375

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646

JULY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			PLANETARIUM SKY SHOWS summer weekday shows at 11 a.m., and 12:30, 2, and 3:30 p.m.		1 "Echoes from the Moon," sky show begins (Morrison Planetarium)	2 **"Monarca ... butterfly beyond boundaries"** exhibit opens (Wattis Hall)
3 All Nations Day celebration and parade (Music Concourse)	4 **Summer Hours in Effect** The Academy will be open from 10 a.m. to 7 p.m. through Labor Day	5 **PENGUIN FEEDINGS** are at 11:30 a.m. and 4 p.m. every day	6	7 In Search of Human Origins, Blake Edgar, 2 p.m. (Author's Day)	8	9 Welsh Harp, 1–2 p.m. (Traditional Arts)
10 **FISH ROUNDABOUT** closed for repairs until fall	11 Junior Academy summer classes, Session I, begin (Education)	12 **SCIENCE IN ACTION**	13 The Oregon Trail, 2 and 7:30 p.m. (Members Meeting)	14 In Search of Human Origins, Blake Edgar, 2 p.m. (Author's Day)	15	16 Academy closes 5 p.m. Bedrock Ball, 8:30 p.m. Folk Dances, 1–2 p.m. (Traditional Arts)
17	18	19 General programs, Sun.–Fri. 11 a.m. Children's programs, Sat., 12:30 and 3 p.m. Topic for July is *cactus deserts.*	20 Members Special Monarca Celebration, 6–8 p.m. (Membership)	21	22 **COMET HITS JUPITER** Comet Shoemaker-Levy 9 hits Jupiter July 16. View NASA T.V. coverage from July 16–22	23 Greek Ceramics, 1–2 p.m. (Traditional Arts)
24/31	25	26	27	28	29	30 Puppet Theater, 1–2 p.m. (Traditional Arts)

Judy Houston Photography

AUGUST

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1 **MEMBERS** Please bring your membership card when you visit the Academy	2	3	4 **SCIENCE IN ACTION**	5 **DOLPHIN FEEDINGS** are at 10:30 a.m., and 12:30, 2:30 and 4:30 p.m. every day	6 Taos Pottery, 1–2 p.m. (Traditional Arts) Gem & Mineral Show, 10–6 (Hall of Flowers)
7 Ruby Red Gem & Mineral Show, 10 a.m. to 5 p.m. (Hall of Flowers)	8	9 **SPECIALTY TOURS** Free one-hour tour at 1:30 p.m. on Tuesdays, in Aquarium; Wednesdays, in Life Through Time; Thursdays, in Wild California. Highlight tours are offered daily.	10 Dr. Edward S. Ross	11 General programs, Sun.–Fri. 11 a.m. Children's programs, Sat., 12:30 and 3 p.m. Topic for August is *coral reefs.*	12	13 Russian Silk Painting, 1–2 p.m. (Traditional Arts)
14 **LASERIUM SHOWS** Thursday–Sunday, evenings, call 750-7138	15 "Wildlife Photographer of the Year" exhibit opens (Cafeteria)	16	17 The Beautiful Monarch, 2 and 7:30 p.m. (Members Meeting)	18	19	20 Scottish Bagpipes, 1–2 p.m. (Traditional Arts)
21	22 **PLANETARIUM SKY SHOWS** on weekends at 11 a.m., and at 12, 1, 2, 3 and 4 p.m.	23	24	**SPECIAL EXHIBITS** Monarca ... butterflies beyond boundaries, July 2–Sept. 18 Wildlife Photographer of the Year, Aug. 15–Oct. 10 Hands on Science, through Dec. 1994 Birds of a Feather, through June 1995		27 Appalachian Dance and Folkways, 1–2 p.m. (Traditional Arts)
28	29	30	31			

SEPTEMBER DATES TO REMEMBER

Sept. 5, Summer hours end — Academy closes at 5 p.m.
Sept. 10, Global Horizons and Rocky Shores (Special Lectures)
Sept. 11, Echoes from the Moon sky show closes (Planetarium)

UPCOMING MEMBERS MEETINGS

Sept. 14, Endangered People, with Art Davidson
Oct. 12, Members Open House
Nov. 16, Spiders, with Charles Griswold